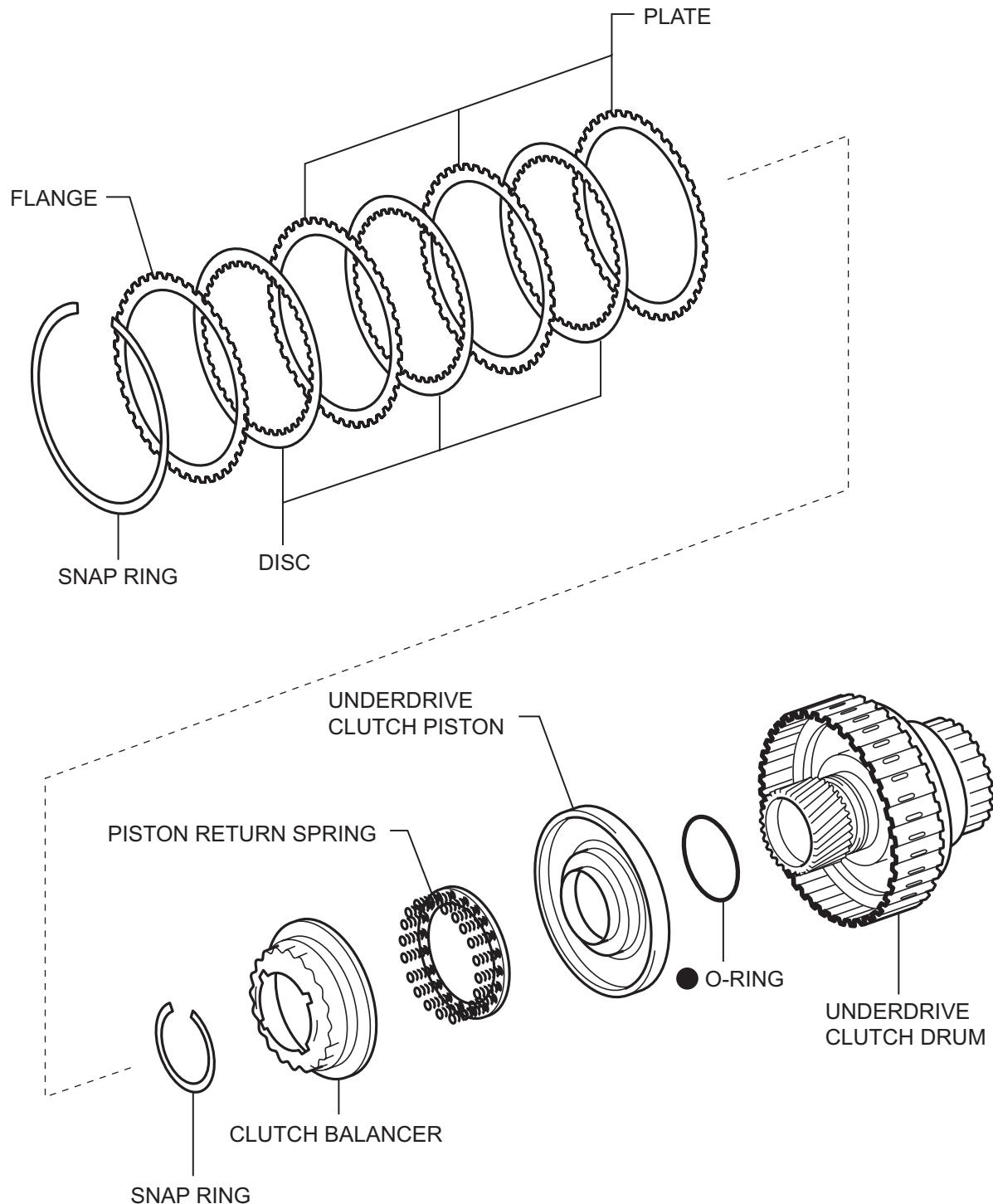


# UNDERDRIVE CLUTCH

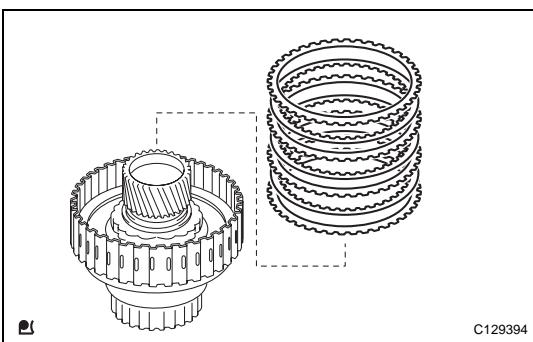
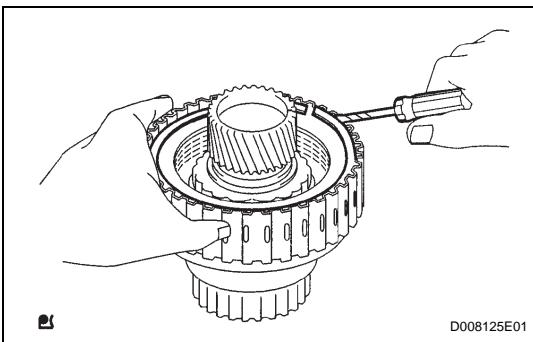
## COMPONENTS



Non-reusable part

## DISASSEMBLY

- 1. INSPECT UNDERDRIVE PACK CLEARANCE (See page AX-247)**



- 2. REMOVE NO. 1 UNDERDRIVE CLUTCH DISC**

(a) Using a screwdriver, pry out the snap ring.

- 3. INSPECT NO. 1 UNDERDRIVE CLUTCH DISC (See page AX-248)**

(b) Remove the flange, 3 discs and 3 plates from the underdrive clutch drum.

- 4. REMOVE UNDERDRIVE CLUTCH PISTON SET**

(a) Place SST on the clutch balancer and compress the spring with a press.

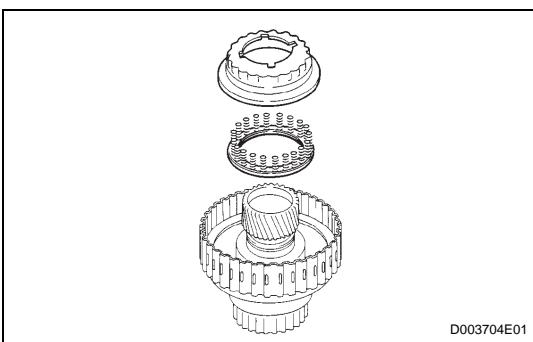
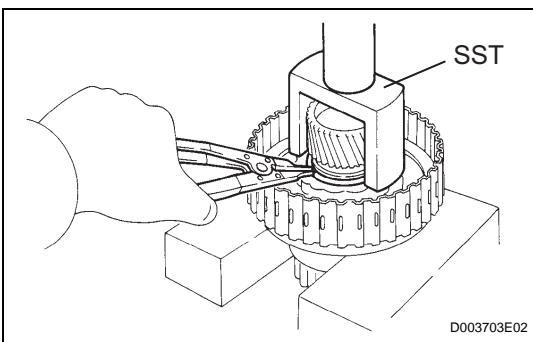
**SST 09350-32014 (09351-32070)**

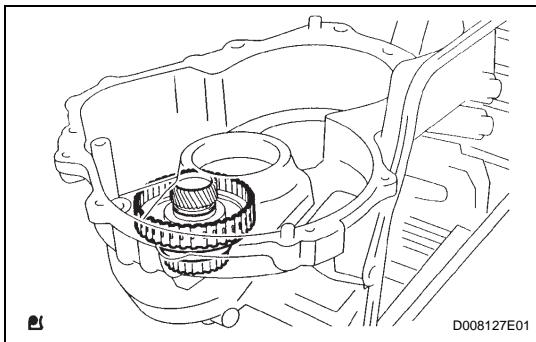
(b) Using a snap ring expander, remove the snap ring.

**NOTICE:**

- Stop the press when the spring sheet is lowered to the place 1 to 2 mm (0.039 to 0.078 in.) from the snap ring groove.
- This prevents the spring sheet from being deformed.
- Do not expand the snap ring excessively.

(c) Remove the clutch balancer and piston return spring from the underdrive clutch drum.

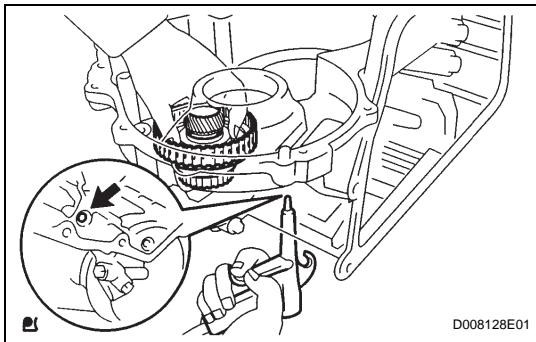




(d) Install the underdrive clutch to the transaxle case.

**NOTICE:**

Be careful not to damage the oil seal rings.

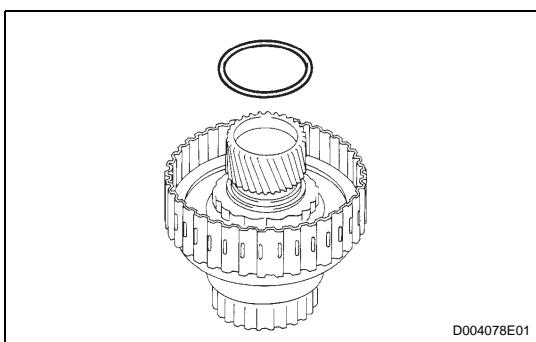


(e) Holding the underdrive clutch piston with your hand, apply compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi) to the transaxle case to remove the underdrive clutch piston.

**5. INSPECT UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSEMBLY (See page AX-248)**

**6. REMOVE UNDERDRIVE CLUTCH DRUM O-RING**

**7. INSPECT UNDERDRIVE CLUTCH DRUM SUB-ASSEMBLY (See page AX-248)**



AX

## INSPECTION

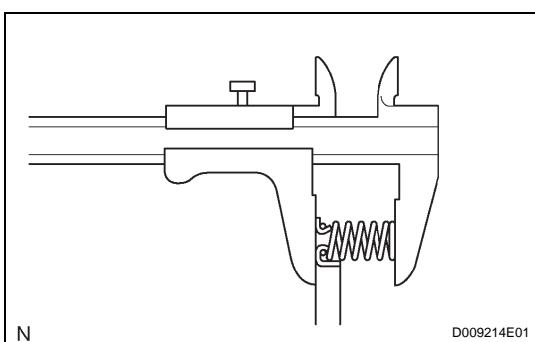
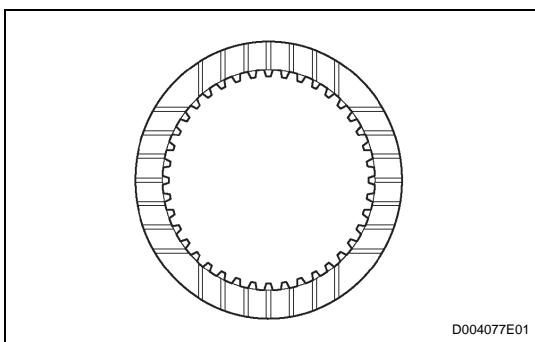
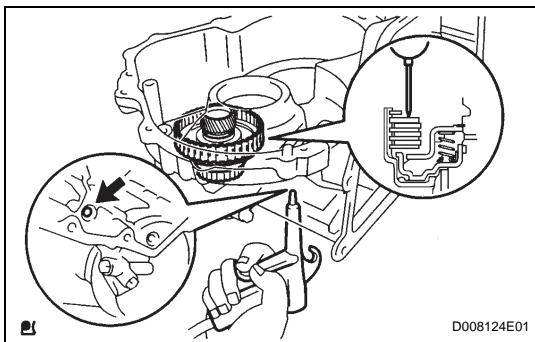
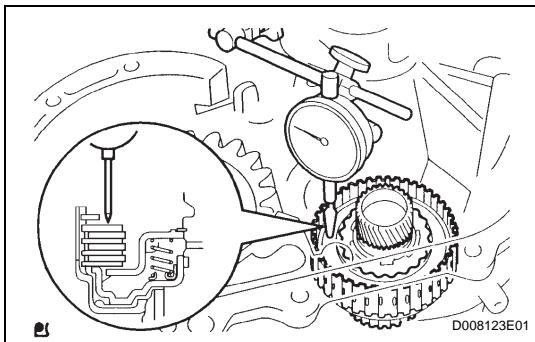
### 1. INSPECT UNDERDRIVE PACK CLEARANCE

(a) Install the underdrive clutch to the transaxle case.

**NOTICE:**

Be careful not to damage the oil seal rings.

(b) Install a dial indicator as shown in the illustration.



(c) Measure the underdrive clutch pack clearance while applying and releasing compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi).

**Standard pack clearance:**

**1.51 to 1.90 mm (0.0594 to 0.0748 in.)**

If the pack clearance is not as specified, inspect the discs, plates and flange.

### 2. INSPECT NO. 1 UNDERDRIVE CLUTCH DISC

(a) Check to see if the sliding surface of the disc, plate and flange are worn or burnt. If necessary, replace them.

**HINT:**

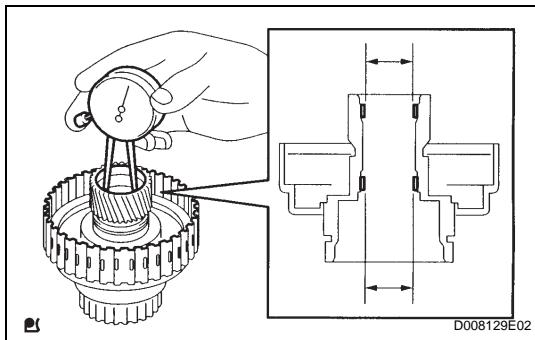
- If the lining of the disc is peeling off or discolored, or even if a part of the printed mark is defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.

### 3. INSPECT UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSEMBLY

(a) Using a vernier caliper, measure the free length of the spring together with the spring seat.

**Standard free length:**

**17.14 mm (0.6748 in.)**



#### 4. INSPECT UNDERDRIVE CLUTCH DRUM SUB-ASSEMBLY

(a) Using a caliper gauge, measure the inside diameter of the underdrive clutch drum bush.

**Standard drum bush:**

**32.56 to 32.58 mm (1.2818 to 1.2826 in.)**

**Maximum drum bush:**

**32.63 mm (1.2846 in.)**

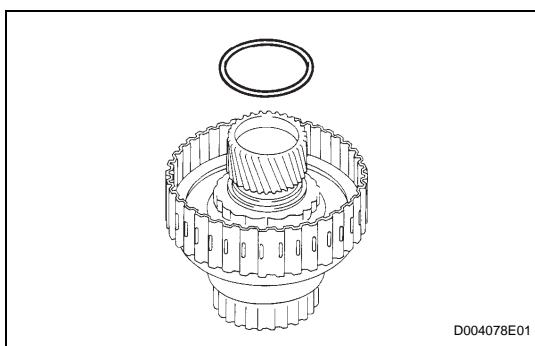
If the inside diameter is greater than the maximum, replace the underdrive clutch drum sub-assembly.

AX

## REASSEMBLY

### 1. INSTALL UNDERDRIVE CLUTCH DRUM O-RING

(a) Coat a new O-ring with ATF and install it to the underdrive clutch drum.

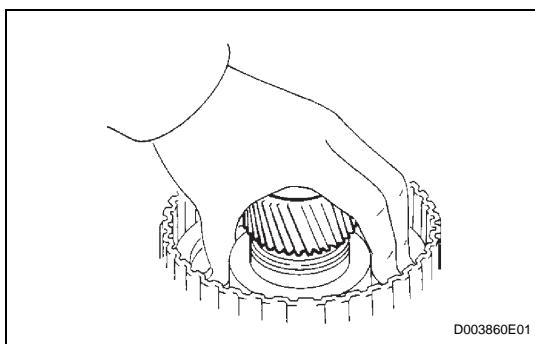


### 2. INSTALL UNDERDRIVE CLUTCH PISTON SET

(a) Coat the underdrive clutch piston with ATF, and install it to the underdrive clutch piston drum.

**NOTICE:**

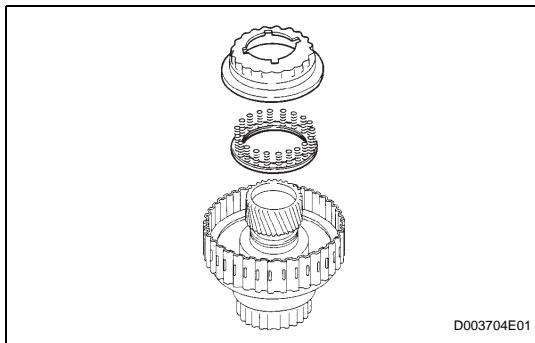
**Be careful not to damage the O-ring.**



(b) Install the piston return spring and clutch balancer to the underdrive clutch drum.

**NOTICE:**

**Be careful not to damage the lip seal of the clutch balancer.**



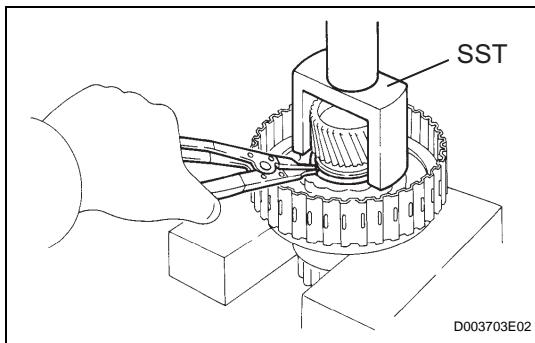
(c) Place SST on the clutch balancer and compress the piston return spring with a press.

**SST 09350-32014 (09351-32070)**

(d) Using a snap ring expander, install the snap ring to underdrive clutch drum.

**NOTICE:**

- Be sure the end gap of the snap ring is not aligned with the clutch balancer's claw.
- Stop the press when the spring sheet is lowered to the place 1 to 2 mm (0.039 to 0.078 in.) from the snap ring groove.



- This prevents the spring sheet from being deformed.
- Do not expand the snap ring excessively.

### 3. INSTALL NO. 1 UNDERDRIVE CLUTCH DISC

(a) Install the 3 plates, 3 discs and flange.

**Install in order:**

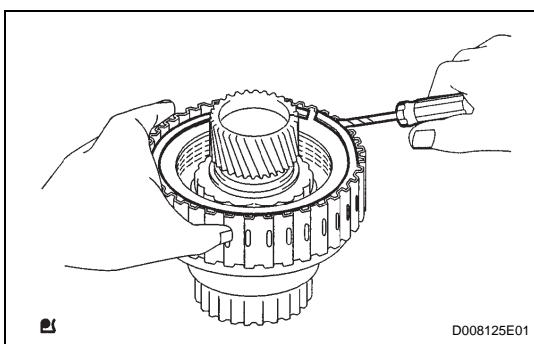
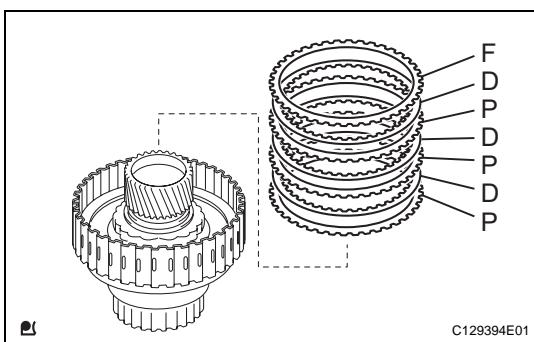
P - D - P - D - P - D - F

**HINT:**

P = Plate

D = Disc

F = Flange



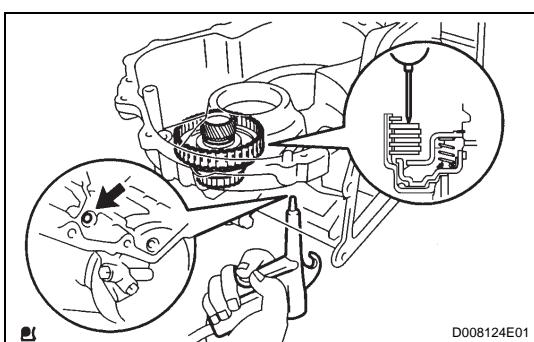
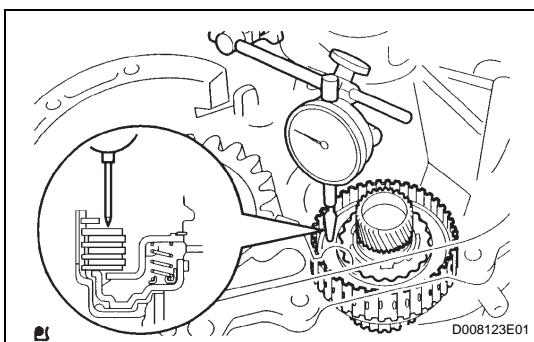
### 4. INSPECT UNDERDRIVE PACK CLEARANCE

(a) Install the underdrive clutch to the transaxle case.

**NOTICE:**

Be careful not to damage the oil seal rings.

(b) Set a dial indicator as shown in the illustration.



(c) Measure the underdrive clutch piston stroke while applying and releasing compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi).

**Standard pack clearance:**

**1.51 to 1.90 mm (0.0594 to 0.0748 in.)**

If the pack clearance is less than the minimum, parts may have been assembled incorrectly, so check and reassemble again.

If the park clearance is not as specified, select another flange.

**HINT:**

There are 3 flanges in different thickness.

**Standard flange thickness**

No.	Thickness	No.	Thickness
A	3.0 mm (0.118 in.)	C	3.4 mm (0.134 in.)
B	3.2 mm (0.126 in.)	-	-